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**Maintenance**

**HANGER DOOR OPERATION**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction establishes responsibilities and procedures for proper and safe hangar door operation for facilities assigned to the 62/446 Air Wing (AW). This instruction applies to all personnel assigned to the 62/446 AW.

**SUMMARY OF REVISIONS**

This instruction has been completely revised and requires complete review. Administrative and formatting changes have been made to make the standard easier to read and references/phone numbers have been updated as required. This summary outlines major changes to this standard. Aligned instruction with direction given by AFI 21-101, AFOSH STD 91-100 and the appropriate AMC supplements. Para **3.2**. Added clarification of new training procedures and documentation. Para **3.2.1**. adds a requirement for awareness training and documentation procedures. Para **3.2.2**. adds a requirement for non-maintenance personnel to operate hangar doors. Para **3.3**. adds the two man concept during emergencies. Para **3.5.11**. clarifies lockout-tagout procedures. Para 4 and 5 duplicated published instructions and were removed. A **bar ( | )** indicates a change since the last revision.

**1. References.** AFI 21-101, Aerospace Equipment Maintenance Management, AFI 21-101\_AMCSUP1, AFOSH Standard 91-100, Aircraft Flightline-Ground Operations and Activities, AFOSH Standard 91-501, Air Force Consolidated Occupational Safety Standard, and AFI 91-301, Air Force Occupational and Environmental, Safety, Fire Protection, and Health Program.

**2. Responsibilities.** Flight chiefs/supervisors are responsible for ensuring compliance with this instruction.

**3. Procedures.**

3.1. This instruction contains all steps necessary for safe operation of designated hangar doors.

**NOTE:** Each hangar type has a separate and individual instruction for the operation of its doors. These instructions are attachments to this instruction and will be posted on hangar doors for the operator's use.

**WARNING:**

**FAILURE TO PROPERLY COMPLY WITH THESE INSTRUCTIONS CAN CAUSE SERIOUS INJURY TO PERSONNEL AND DAMAGE TO EQUIPMENT.**

3.2. All personnel required to operate hangar doors will receive annual door-specific on-the-job training (OJT) from a certified trainer (5 skill level or civilian equivalent) using a current lesson plan the training plans have been placed in the following location on the intranet: 62 AW Common/Hangar Doors/Hangar Door Training/Masters (see [Attachment 9](#) for course codes). Workcenter personnel previously identified in GO81 as qualified under course code SAFE 1100 and are current operators of their workcenter hangar doors are considered qualified to train; and will train and certify new users on only their specific workcenter hangar doors. Certification for maintenance personnel will be entered into the G081 System. Non-maintenance personnel will use an AF Form 55 for documentation of their training. Dual training documentation is not required in accordance with AFI 91-301 (7.3.1). However, AF Form 55 must list hangars as workcenter safety hazards.

3.2.1. All personnel that routinely work in hangar facilities in the performance of their duties, regardless of AFSC or duties, must receive initial awareness training available via Computer Based Training (CBT) at the Distance Learning Center or it's website <https://intranet.mcchord.af.mil/units/lg/training/index.htm> upon assignment and annually thereafter. Awareness training will be documented in GO81 using course code Mcch001100 for maintenance personnel and the AF Form 55 for all others.

3.2.2. For non-maintenance personnel required to operate hangar doors, squadron commanders will forward a letter to the 62 MXG/CC listing qualified and authorized door operators for each type of hangar door. Total number of qualified operators will be kept to a minimum.

3.3. Hangar doors will only be operated using the "two man" concept with the second person acting as a safety observer during operation. They will also act as a safety guard in the case of a door malfunction while the first person seeks assistance.

3.4. To save heat during cold weather operations, the following instructions will apply:

3.4.1. When towing aircraft into and out of hangars, the tow supervisor will ensure the hangar doors are opened/closed as required for energy conservation.

3.4.2. The main hangar doors will not be utilized for entry/exit of vehicles and equipment that can be safely moved through the service roll up doors.

3.5. As applicable, the Workcenter Supervisor/Facility Manager of each hangar will:

3.5.1. Maintain the door operating instructions using current attachments to this instruction.

- 3.5.2. Post a current set of door operating instructions by each door's control switch.
- 3.5.3. Maintain legible identification stencils for all door control switches.
- 3.5.4. Maintain wing tip 10-foot clearance line markings on the hangar floor for C-17 aircraft.
- 3.5.5. Maintain hangar door "FULL OPEN POSITION" markings located at the wing tip clearance floor marking or wider.
- 3.5.6. Ensure a nose wheel stop line perpendicular to the nose wheel guideline is maintained and identified with "STOP! CHECK WING TIP CLEARANCE HERE" markings.
- 3.5.7. Paint a nose wheel stop line inside the hangar, perpendicular to the nose wheel guideline, to indicate the mandatory stop position where the aircraft is to be parked. Stop lines will be painted in all hangars for C-17 aircraft.
- 3.5.8. Maintain floor markings for minimum 10-foot hangar door opening distance.
- 3.5.9. In all facilities where the "T" tail extends outside the hangar doors, door stops will be utilized to prevent closing the hangar doors into the aircraft.
- 3.5.10. Ensure the 62 AW Maintenance Operations Command Center (MOC) (2-3336) is notified of inoperative doors and measures taken to correct the problem. Call in an emergency work order requests to Civil Engineering (CE) work order desk (2-5739).
- 3.5.11. Hangar doors are to be locked out only by personnel qualified and certified under the requirements of AFOSH standard 91-501, AIR FORCE CONSOLIDATED OCCUPATIONAL SAFETY STANDARD

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**Attachment 1**

**COMMON WARNING INFORMATION MUST BE POSTED WITH ALL ATTACHMENTS**

***WARNING:***

**CHECK DOOR TRACKS TO ENSURE THEY ARE  
CLEAR OF PERSONNEL, EQUIPMENT, AND DEBRIS**

***WARNING:***

**FOR SAFETY OF PERSONNEL, HANGAR DOOR OPENING WILL BE A MINIMUM OF 10  
FEET.**

***WARNING:***

**USE EAR PROTECTION WHEN OPERATING DOORS**

***WARNING:***

**ENSURE THAT EXTERIOR OPERATOR  
DOOR IS CLOSED.  
THE HANGAR DOOR CANNOT  
BE MOVED IF THE EXTERIOR OPERATOR  
DOOR IS OPEN**

***WARNING:***

**DO NOT MOVE DOORS BY HAND OR WITH A VEHICLE**

**Attachment 2****HANGARS 1 THROUGH 4 DOOR OPENING INSTRUCTIONS**

**A2.1.** Only qualified personnel will be authorized to operate the hangar doors. Operators will be thoroughly familiar with these operating instructions and will be certified IAW established procedures. The following sequence of door operations will be strictly adhered to.

**A2.2.** Ascertain that door coupling pins are installed between Doors.

**A2.3.** To open main doors, press the “Open” button, and hold it until the doors are aligned with the full open mark on the hangar floor (warning horn sounds for five seconds before door moves).

***WARNING:*****ALL MAIN HANGAR DOORS MUST BE FULLY OPEN BEFORE OPERATING  
THE ELECTRICALLY CONTROLLED OVERHEAD “T” TAIL DOOR**

**A2.4.** To open the overhead door, press the “T”-Tail “Open” button.

**A2.5.** Vertical door will travel to the “open” position until “up” limit switches are activated or “push” button is released, automatically stopping drive motor.

**A2.6.** Doors that fail to operate properly will be locked and tagged by authorized personnel with an AF Form 981, Out Of Order Tag, and an emergency work order will be called into extension 2-5739. The 62 AW MOC will be notified of this condition at extension 2-3336/5704. Also contact the facility managers.

**Attachment 3****HANGARS 1 THROUGH 4 DOOR CLOSING INSTRUCTIONS**

**A3.1.** Only qualified personnel will be authorized to operate the hangar doors. Operators will be thoroughly familiar with these operating instructions and will be certified IAW established procedures. The following sequence of door operations will be strictly adhered to.

**A3.2.** Ascertain that door coupling pins are installed between doors.

***WARNING:*****THE ELECTRICALLY CONTROLLED OVERHEAD “T” TAIL DOOR  
MUST BE CLOSED BEFORE CLOSING MAIN HANGAR DOORS**

**A3.3.** To close “T”-Tail door, press “T”-Tail “Door Close” button (warning horn sounds for five seconds before door moves).

**A3.4.** Vertical door will travel to the “closed” position until “down” limit switches are activated or “push” button is released, automatically stopping drive motor.

**A3.5.** To close main doors, press “Close” button, and hold it until the doors are closed (warning horn sounds for five seconds before door moves).

**A3.6.** Doors that fail to operate properly will be locked and tagged by authorized personnel with an AF Form 981, Out Of Order Tag, and an emergency work order will be called into extension 2-5739. The 62 AW MOC will be notified of this condition at extension 2-3336/5704.

**Attachment 4****ALTERNATE CORROSION CONTROL HANGAR (BUILDING 1178) DOOR  
OPENING/CLOSING INSTRUCTIONS**

**A4.1.** Only qualified personnel will be authorized to operate the hangar doors. Operators will be thoroughly familiar with these operating instructions and will be certified IAW established procedures. The following sequence of door operations will be strictly adhered to.

**A4.2.** Hangar door opening procedures:

***CAUTION:*****ENSURE PERSONNEL DOORS ARE CLOSED**

A4.2.1. Push the button marked "Open" at the leading edge of the door. The door will automatically stop at the door pocket.

**A4.3.** Hangar door closing procedures:

A4.3.1. Close the main doors by pushing the "Close" switch at the leading edge of the door until the door automatically stops at the center of the hangar.

***CAUTION:*****WHEN CLOSING DOORS WITH AN AIRCRAFT IN HANGAR,  
ENSURE APERATURE DOORS ARE FULLY OPENED AND LOCKED**

**A4.4.** Doors that fail to operate properly will be locked and tagged by authorized personnel with an AF Form 981, Out Of Order Tag, and an emergency work order will be called into extension 2-5739. The 62 AW MOC will be notified of this condition at extension 2-3336/5704. Also contact the facility managers.

**Attachment 5****FUEL SYSTEMS REPAIR HANGAR (BUILDING 1174) DOOR OPENING/CLOSING INSTRUCTIONS**

**A5.1.** Only qualified personnel will be authorized to operate the hangar doors. Operators will be thoroughly familiar with these operating instructions and will be certified IAW established procedures. The following sequence of door operations will be strictly adhered to.

**A5.2.** Manually turn off hangar heater switches prior to opening doors.

***CAUTION:*****ENSURE PERSONNEL EXIT DOORS ARE CLOSED**

**A5.3.** To open doors, press and hold “Door Open” control switch located on center main doors until fully opened (forward edge of the main center door must align with hangar door clearance line).

***CAUTION:*****WHEN CLOSING DOORS WITH AN AIRCRAFT IN HANGAR,  
ENSURE APERATURE DOORS ARE FULLY OPENED AND LOCKED**

**A5.4.** To close doors, press and hold “Door Close” control switch located on center main doors until fully closed.

**A5.5.** Doors that fail to operate properly will be locked and tagged by authorized personnel with an AF Form 981, Out Of Order Tag, and an emergency work order will be called into extension 2-5739. The 62 AW MOC will be notified of this condition at extension 2-3336/5704. Also contact the facility managers.



**Attachment 6****NOSE DOCKS (BUILDING 1165), (BUILDING 1169), (BUILDING 1170) MANUAL HANGAR  
DOOR OPENING/CLOSING INSTRUCTIONS**

**A6.1.** Only qualified personnel will be authorized to operate the hangar doors. Operators will be thoroughly familiar with these operating instructions and will be certified IAW established procedures. The following sequence of door operations will be strictly adhered to.

**A6.2.** Hangar door opening procedures:

A6.2.1. Ensure door lock pins are unlocked and retracted.

A6.2.2. Manually push hangar doors open until they are firmly against the door stops and aligned with the full open mark on the hangar floor.

***CAUTION:*****ENSURE DOOR STOPPERS ARE INSTALLED IN DOOR TRACKS PRIOR TO CLOSING  
HANGAR DOORS WITH AIRCRAFT PRESENT**

**A6.3.** Hangar door closing procedures:

A6.3.1. Manually push hangar doors closed until closed or come up against doorstoppers.

**A6.4.** Doors that fail to operate properly will be locked and tagged by authorized personnel with an AF Form 981, Out Of Order Tag, and an emergency work order will be called into extension 2-5739. The 62 AW MOC will be notified of this condition at extension 2-3336/5704. Also contact the facility managers.

**Attachment 7****NOSE DOCKS (BUILDING 1164, 1166, 1167) DOOR OPENING/CLOSING INSTRUCTIONS**

**A7.1.** Only qualified personnel will be authorized to operate the hangar doors. Operators will be thoroughly familiar with these operating instructions and will be certified IAW established procedures. The following sequence of door operations will be strictly followed.

**A7.2.** Hangar door opening procedures:

***NOTE:*****IF DOOR FAILS TO OPERATE, CHECK EMERGENCY  
EXIT DOORS TO SEE IF THEY ARE FULLY CLOSED**

A7.2.1. To open doors, press and hold "Door Open" control switch located on center main doors until fully opened (forward edge of the main center door aligned with hangar clearance line).

**A7.3.** Hangar door closing procedures:

***CAUTION:*****WHEN CLOSING DOORS, ENSURE POSITIVE STEPS  
ARE TAKEN TO AVOID CONTACT WITH AIRCRAFT**

A7.3.1. Press and hold "Door Close" control switch located on the center main door until either door is fully closed.

**A7.4.** Doors that fail to operate properly will be locked and tagged by authorized personnel with an AF Form 981, Out Of Order Tag, and an emergency work order will be called into extension 2-5739. The 62 AW MOC will be notified of this condition at extension 2-3336/5704. Also contact the facility managers.

**Attachment 8****OPERATING PROCEDURES FOR OPENING AND CLOSING HANGAR DOORS AT THE  
CORROSION CONTROL FACILITY (BLDG 1160)**

**A8.1.** Only qualified personnel will be authorized to operate hangar doors. Operators will be thoroughly familiar with these operating instructions, and will be certified IAW 21-14 Para 3.2. The following sequence of door operations will be strictly adhered to.

***WARNING:*****IF VENTILATION SYSTEM IS ON CHECK WITH CORROSION FACILITY PERSONNEL  
BEFORE OPENING HANGAR DOORS**

**A8.2.** Opening hangar doors while ventilation system is on will shut down the system. If CCF personnel are not available contact Structural Repair, 982-5375

***CAUTION:*****ENSURE PERSONNEL EXIT DOORS ARE CLOSED**

**A8.3.** To open doors, press and hold "Door Open" control switch located on center main doors until fully opened (door full open mark on hangar floor)

**A8.4.** To close doors, press and hold "Door Close" control switch located on center main doors until fully closed.

**A8.5.** Doors that fail to operate properly will be locked and tagged by authorized personnel with an AF Form 981, Out Of Order Tag, and an emergency work order will be called into extension 2-5739. The 62 AW MOC will be notified of this condition at extension 2-3336/5704. Also contact the facility managers.

**Attachment 9****GO81 COURSE CODES****A9.1. GO81 Course codes:**

Annual awareness training	Mcch001100
Hangar door operations hangar 1-4	Mcch001104
Hangar door operations hangar 1178	Mcch001178
Hangar door operations hangar 1174	Mcch001174
Hangar door operations hangars 1164,1166,1167	Mcch001107
Hangar door operations hangar 1160	Mcch001160
Hangar door operations hangars 1165,1169,1170	Mcch001108